LISTING OF THE CLAIMS PER 37 C.F.R. §1.121

1. (Currently amended) A method of modifying a source code portion associated with a computer program, comprising ~~the steps of~~:

scanning said source code portion using a parser to recognize at least one select syntax structure therein, said parser having one or more predetermined code modification portions therein, each being operable to specify a corresponding instrumentation code portion ~~a predetermined code modification portion~~; and

inserting an instrumentation code portion into said source code portion at a location associated with a particular one of said at least one select syntax structure, said instrumentation code portion being specified responsive to a corresponding predetermined code modification portion provided in said parser ~~based on said predetermined code modification portion of said parser~~.

2. (Currently amended) The method of modifying a source code portion associated with a computer program as set forth in claim 1, wherein said parser comprises a recursive-descent ~~C language~~ parser, and further wherein said computer program is a ~~C language~~ program selected from the group consisting of an operating system kernel, an application program and a software utility program.

3. (Currently amended) The method of modifying a source code portion associated with a computer program as set forth in claim 2, further comprising ~~the step of~~ pre-processing said source code portion.

4. (Currently amended) The method of modifying a source code portion associated with a computer program as set forth in claim 3, wherein said pre-processing ~~step~~ is operable to remove macro code portions from said source code portion.

5. (Original) The method of modifying a source code portion associated with a computer program as set forth in claim 2, wherein said operating system kernel comprises HP-UX Operating System kernel.

6. (Original) The method of modifying a source code portion associated with a computer program as set forth in claim 2, wherein said instrumentation code portion is operable to count accesses to a particular global variable of said computer program.

7. (Original) The method of modifying a source code portion associated with a computer program as set forth in claim 2, wherein said instrumentation code portion is operable to count accesses to a particular function subroutine of said computer program.

8. (Original) The method of modifying a source code portion associated with a computer program as set forth in claim 2, wherein said instrumentation code portion is operable to count accesses to a particular global variable from a select module of said computer program.

9. (Original) The method of modifying a source code portion associated with a computer program as set forth in claim 2, wherein said instrumentation code portion is operable to monitor frequency of function calls from a plurality of select locations in said computer program.

10. (Original) The method of modifying a source code portion associated with a computer program as set forth in claim 2, wherein said instrumentation code portion is operable to monitor frequency of use of a plurality of code paths in said computer program.

11. (Original) The method of modifying a source code portion associated with a computer program as set forth in claim 2, wherein said operating system kernel is operable with a multiprocessor computer system.

12. (Currently amended) A system for modifying a source code portion associated with a computer program, comprising:

parser means for scanning said source code portion to recognize at least one select syntax structure therein, said parser means including one or more predetermined code modification portions therein, each being operable to specify a corresponding instrumentation code portion; and

means for automatically and selectively inserting an instrumentation code portion into said source code portion at a location associated with a particular one of said select syntax structure, said instrumentation code portion being specified responsive to a corresponding predetermined code modification portion provided in said parser means ~~based on a predetermined code modification portion provided with said parser means~~.

13. (Currently amended) The system for modifying a source code portion associated with a computer program as set forth in claim 12, wherein said parser means comprises a recursive-descent ~~C language~~ parser, and further wherein said computer program is a ~~C language~~ program selected from the group consisting of an operating system kernel, an application program and a software utility program.

14. (Original) The system for modifying a source code portion associated with a computer program as set forth in claim 13, further comprising a pre-processor for removing macro code portions associated with said source code portion.

15. (Original) The system for modifying a source code portion associated with a computer program as set forth in claim 13, wherein said instrumentation code portion is operable to count accesses to a particular global variable of said computer program.

16. (Original) The system for modifying a source code portion associated with a computer program as set forth in claim 13, wherein said instrumentation code portion is operable to count accesses to a particular function subroutine of said computer program.

17. (Original) The system for modifying a source code portion associated with a computer program as set forth in claim 13, wherein said instrumentation code portion is operable to count accesses to a particular global variable from a select module of said computer program.

18. (Original) The system for modifying a source code portion associated with a computer program as set forth in claim 13, wherein said instrumentation code portion is operable to monitor frequency of function calls from a plurality of select locations in said computer program.

19. (Original) The system for modifying a source code portion associated with a computer program as set forth in claim 13, wherein said instrumentation code portion is operable to monitor frequency of use of a plurality of code paths in said computer program.

20. (Original) The system for modifying a source code portion associated with a computer program as set forth in claim 13, wherein said operating system kernel is operable with a multiprocessor computer system.

21. (Currently amended) A computer-readable medium operable with a processing environment, said computer-readable medium carrying a sequence of instructions which, when executed in said processing environment, causes said processing environment to perform ~~the steps of~~:

scanning a source code portion of a computer program using a parser to recognize at least one select syntax structure therein, said parser having one or more predetermined code modification portions therein, each being operable to specify a corresponding instrumentation code portion ~~a predetermined code modification portion~~; and

inserting an instrumentation code portion into said source code portion at a location associated with a particular one of said at least one select syntax structure, said instrumentation code portion being specified responsive to a corresponding predetermined code modification portion provided in said parser ~~based on said predetermined code modification portion of said parser~~.

22. (Currently amended) The computer-readable medium operable with a processing environment as set forth in claim 21, wherein said parser comprises a recursive-descent ~~C language~~ parser, and further wherein said computer program is a ~~C language~~ program selected from the group consisting of an operating system kernel, an application program and a software utility program.

23. (Original) The computer-readable medium operable with a processing environment as set forth in claim 22, wherein said instrumentation code portion is operable to monitor frequency of use of a plurality of code paths in said computer program.

24. (Original) The computer-readable medium operable with a processing environment as set forth in claim 22, wherein said operating system kernel is operable with a multiprocessor computer system.

25. (Original) The computer-readable medium operable with a processing environment as set forth in claim 22, wherein said instrumentation code portion is operable to count accesses to a particular global variable of said computer program.

26. (Original) The computer-readable medium operable with a processing environment as set forth in claim 22, wherein said instrumentation code portion is operable to count accesses to a particular function subroutine of said computer program.

27. (Original) The computer-readable medium operable with a processing environment as set forth in claim 22, wherein said instrumentation code portion is operable to count accesses to a particular global variable from a select module of said computer program.

28. (Original) The computer-readable medium operable with a processing environment as set forth in claim 22, wherein said instrumentation code portion is operable to monitor frequency of function calls from a plurality of select locations in said computer program.